

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
DRAINAGE

PROJECT NO.	PROJECT NAME	2007	2008	2009	2010	2011	TOTAL
DR0602	US 90A Ditch Improvements	65,000	1,750,000				1,815,000
DR0604	Additional Inlets along Maygrove Drive/ Covington Woods (s)	70,000					70,000
DR0606	Ditch "A-22" Modifications (s)	100,000					100,000
DR0607	Ditch H Extension	3,500,000					3,500,000
DR0608	Storm Sewer Inlet/ Apron Reconstruction	125,000					125,000
DR0701	Sugar Creek Drainage Improvements - Phase I	550,000					550,000
DR0702	Sugar Creek/ Market Place Phase II	150,000	1,700,000				1,850,000
DR0703	Additional Flow Monitors	125,000					125,000
DR0704	Localized Drainage Improvements	250,000					250,000
DR0705	AMIL Gates Rehabilitation	240,000					240,000
DR0706	Belknap/ Brookside Area Phase III Improvements	100,000	900,000				1,000,000
DR0801	Storm Sewer Lateral Tie-in's to Eldridge Road		890,000				890,000
DR0802	Covington Woods Phase II Improvements		300,000	3,000,000			3,300,000
DR0803	Sugar Creek Drainage Improvements - Phase II		1,200,000				1,200,000
DR0901	Sugar Creek Drainage Improvements - Phase III			6,500,000			6,500,000
	TOTAL	\$5,275,000	\$6,740,000	\$9,500,000			\$21,515,000

SOURCE OF FUNDS-DRAINAGE	2007	2008	2009	2010	2011	TOTAL
General Revenue						
CO'S	4,440,000					4,440,000
Property Tax For Drainage	515,000					515,000
Future GO Bonds		6,740,000	9,500,000			16,240,000
SLDC						
SLAB						
Airport Revenues						
System Revenues						
Connection Fees						
Other Funding Sources	320,000					320,000
Unfunded						
TOTAL	\$5,275,000	\$6,740,000	\$9,500,000			\$21,515,000

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY BY FUNDING SOURCES - DRAINAGE

PROJECT NAME	2007	2008	2009	2010	2011	TOTAL
Ditch H Extension	3,500,000					3,500,000
Sugar Creek Drainage Improvements - Phase I	550,000					550,000
Localized Drainage Improvements	250,000					250,000
AMIL Gates Rehabilitation	140,000					140,000
TOTAL - CO'S	4,440,000					4,440,000

PROJECT NAME	2007	2008	2009	2010	2011	TOTAL
US 90A Ditch Improvements		1,750,000				1,750,000
Sugar Creek/ Market Place Phase II		1,700,000				1,700,000
Belknap/Brookside Area Phase III Improvements		900,000				900,000
Storm Sewer Lateral Tie-in's to Eldridge Road		890,000				890,000
Covington Woods Phase II Improvements		300,000	3,000,000			3,300,000
Sugar Creek Drainage Improvements - Phase II		1,200,000				1,200,000
Sugar Creek Drainage Improvements - Phase III			6,500,000			6,500,000
TOTAL - FUTURE GO BONDS		6,740,000	9,500,000			16,240,000

PROJECT NAME	2007	2008	2009	2010	2011	TOTAL
US 90A Ditch Improvements	65,000					65,000
Storm Sewer Inlet/ Apron Reconstruction	125,000					125,000
Additional Flow Monitors	125,000					125,000
AMIL Gates Rehabilitation	100,000					100,000
Belknap/Brookside Area Phase III Improvements	100,000					100,000
TOTAL - PROPERTY TAX FOR DRAINAGE	\$515,000					\$515,000

PROJECT NAME	2007	2008	2009	2010	2011	TOTAL
Additional Inlets along Maygrove Drive/ Covington Woods (s)	70,000					70,000
Ditch "A-22" Modifications (s)	100,000					100,000
Sugar Creek/ Market Place Phase II	150,000					150,000
TOTAL - OTHER FUNDING SOURCES	\$320,000					\$320,000

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PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
DR0602	US 90A Ditch Improvements	Design and construction of drainage improvements in US90A Ditch Watershed. The watershed drains to the 90A Ditch located between the limits of Eldridge Rd. and Dairy Ashford. This project is to mitigate existing flooding conditions and to accommodate development of the remaining undeveloped tracts within the 90A watershed.	Recent studies performed by LAN, Inc. and Costello, Inc., indicates that the conveyance system in the watershed does not have adequate capacity to accommodate ultimate build-out within the watershed. The preliminary engineering study (PER) will identify a combination of ditch improvements and regional detention drainage projects to address the drainage issues.
DR0604	Additional Inlets along Maygrove Drive/ Covington Woods (s)	Maygrove is a cul-de-sac street in the Covington Woods subdivision that ultimately drains to the Covington Woods Ditch along the Woodchester storm sewer system. Construction of additional inlets would provide relief from concerns of flooding during smaller rain falls.	Residents have complained about flooding concerns during smaller rain events. The Covington Woods study performed by Dannenbaum Engineering Corp., also identified a number of deficiencies in the stormwater collection system.
DR0606	Ditch "A-22" Modifications (s)	A study is underway to determine recommended improvements.	Recent improvements to "A-22" by MUD 21 in the vicinity of Sugar Mill subdivision exacerbated the flooding problems in the Sugar Mill Subdivision. The City & MUD 21 authorized a study to evaluate the impacts. Based on the findings from this study, mitigation measures are being proposed.

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
SUMMARY - DRAINAGE

PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
DR0607	Ditch H Extension	Extend Ditch "H" across U.S. 90A and railroad to Oyster Creek just upstream of Dam 1. This is one of the projects identified in the 2002 Upper Oyster Creek and Ditch H Drainage Study.	This completes Phase I Improvements identified and recommended in the 2002 Oyster Creek Study. The project will divert stormwater during extreme events from Oyster Creek to Ditch "H" and lower 100-yr WSE in Oyster Creek. The City is proposing partnership with FB County and Tract 3 developer.
DR0608	Storm Sewer Inlet/ Apron Reconstruction	Annual removal and replacement of failed inlet aprons, inlet hoods, and reseal inlet boxes if required. In some cases adjustments to the "I" beams that support the frame and gates may be required.	Public Works has identified many residential streets and arterial streets that have double "B" storm sewer inlets that include a block out in the concrete pavement which has settled, cracked, and is in need of repairs. Final two years of five year project.
DR0701	Sugar Creek Drainage Improvements - Phase I	The Phase 1 Improvements includes construction of lakes/detention within the River Bend Country Club (RBCC) Golf Course. This project is a precursor to other proposed improvements (Phase II and Phase III) in the Sugar Creek Watershed. This project will also mitigate runoff from development within "Triangle" area (bounded between U.S. 59, U.S. 90A & Commerce Green Blvd.).	A comprehensive study of the watershed completed in 2005 proposed a number of drainage improvement projects within the watershed. Phase 1 Improvements will include providing storage/detention to accommodate future improvements. This is necessary to reduce or eliminate downstream impacts. Partnership with RBCC will be necessary to implement these improvements.

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PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
DR0702	Sugar Creek/ Market Place Phase II	Design and construction of an additional 48" diameter reinforced concrete pipe to Jane Long Lake across U.S. Highway 59. This additional conveyance is required to accommodate development in the "Triangle Area" in conjunction with the proposed expansion of the TxDOT detention facility. This project will follow Sugar Creek Drainage Improvements - Phase I.	The existing conduit conveying flow to Jane Long Lake (across US 59) was identified to be inadequate to convey runoff from the proposed development in the "Triangle Area". The recently (August, 2005) completed Triangle Detention PER confirmed that the level of development seen in the "Triangle Area" has triggered the need to construct Phase II Improvements.
DR0703	Additional Flow Monitors	Installation of additional flow monitoring stations and appurtenant devices in the City's watersheds, and enhancements to the existing system.	These devices serve as a "flood alert system" as well as a data collection tool. The data collected is used in the evaluation/design of future drainage improvement projects in the City. The ultimate goal is to install these devices in all major drainage system.
DR0704	Localized Drainage Improvements	Project will consist of providing for preliminary design, engineering and construction of miscellaneous drainage improvements serving specific neighborhoods (i.e., overflow of Oyster Creek Dr. ditch , Main St. drainage inlets and outfall reconstruction of Cottonwood Ct. detention pond).	Project will facilitate the timely correction of localized drainage problems in neighborhood settings.


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PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
DR0705	AMIL Gates Rehabilitation	AMIL Gates located across Brooks Lake Diversion Channel mainly serve as flood control gates and also facilitate maintaining constant water surface elevation upstream of the gates.	The City is assuming the ownership of the gates from LID 2. As part of this transfer of ownership, the City had an assessment of the gates prepared by the vendor. Rehabilitation costs are allocated for potential maintenance/repairs.
DR0706	Belknap/Brookside Area Phase III Improvements	The Kelly Kaluza Study identified three phase of Drainage Improvements to serve the Belknap/Brookside Area. The first two phases of improvements identified in this study have been constructed. Phase III Improvements would complete implementation of all projects recommended in this study.	Residents of Belknap/Brookside have complained to City staff about flooding concerns along Dogwood St. The residents have requested City staff to implement this last phase of proposed improvements to alleviate flooding concerns.
DR0801	Storm Sewer Lateral Tie-in's to Eldridge Road	Design and construction of storm sewer laterals that divert a portion of flows from the Covington Woods Subdivision to Eldridge Road. Additional flow diversions from the following streets (Greenbrier, Linden and Rolling Mill) is being proposed. This project will follow Ditch A-22 modifications.	This is in line with the departmental plan to study and improve all of the areas prone to street flooding within the City. This is the next logical step in the continuation of an opportunistic program for drainage improvements.


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PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
DR0802	Covington Woods Phase II Improvements	Design and construction of Phase II Drainage Improvements as identified in the 2002 Covington Woods Study. This project will follow the Ditch "A-22" Improvements.	The proposed improvements to the Covington Woods channel is to alleviate flooding concerns due to the inadequate capacity of the ditch.
DR0803	Sugar Creek Drainage Improvements - Phase II	The Phase II Improvements mainly include construction/upsizing of storm sewer outfalls at many locations within the watershed. These improvements would provide outlet for trapped sheet flow accumulated during extreme events. Phase II Improvements will help minimize street ponding levels during these events.	A comprehensive study of the watershed completed in 2005 identified a number of locations where street ponding levels exceed allowable design criteria. Also, design for sheet flow was not factored in the original design, since the criteria was adopted in 1989, after majority of Sugar Creek infrastructure was built. Phase II Improvements will help remedy some of these deficiencies.
DR0901	Sugar Creek Drainage Improvements - Phase III	The Phase III Improvements include increasing the capacity of the East Sugar Creek Ditch System. Conceptual alternatives proposed include concrete lining the existing ditch, and installing a parallel box conduit system to convey additional flow to the River Bend Country Club Golf Course.	A comprehensive study of the watershed completed in 2005 identified serious capacity limitations in the East Sugar Creek Ditch. The proposed improvements will provide additional capacity to the East Sugar Creek Drainage System. This project will help minimize street flooding/ponding in drainage areas that outfall into this ditch.

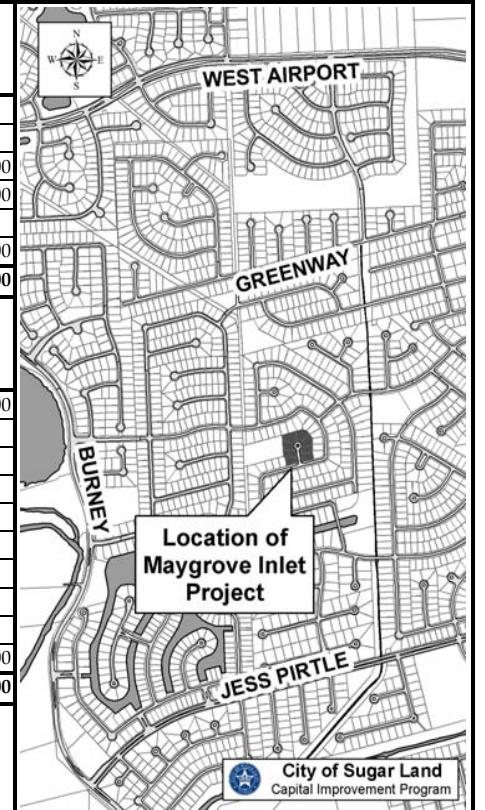
CITY OF SUGAR LAND
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PROJECT NO. DR0602		PROJECT TITLE US 90A Ditch Improvements												
DESCRIPTION Design and construction of drainage improvements in US90A Ditch Watershed. The watershed drains to the 90A Ditch located between the limits of Eldridge Rd. and Dairy Ashford. This project is to mitigate existing flooding conditions and to accommodate development of the remaining undeveloped tracts within the 90A watershed.							IMPACT ON OPERATING BUDGET							
							Expenditures	2007	2008	2009	2010	2011		
							Personnel Services							
							Operations & Maintenance							
							Capital							
JUSTIFICATION Recent studies performed by LAN, Inc. and Costello, Inc., indicates that the conveyance system in the watershed does not have adequate capacity to accommodate ultimate build-out within the watershed. The preliminary engineering study (PER) will identify a combination of ditch improvements and regional detention drainage projects to address the drainage issues.														
							TOTAL							
PROJECT COSTS		Project Budget To Date	FISCAL YEAR PLAN					Project Total						
			BUDGET	ESTIMATED										
		2007	2008	2009	2010	2011								
Preliminary Engineering Report	30,000						30,000							
Land/Right of Way														
Design/Surveying	75,000	65,000					140,000							
Construction			1,750,000				1,750,000							
Equipment and Furniture														
Contingency														
TOTAL COSTS	\$105,000	\$65,000	\$1,750,000				\$1,920,000							
SOURCE OF FUNDS		Project Budget To Date	FISCAL YEAR PLAN					Project Total						
			BUDGET	ESTIMATED										
		2007	2008	2009	2010	2011								
General Revenue														
CO's	105,000						105,000							
Property Tax for Drainage		65,000					65,000							
Future GO Bonds			1,750,000				1,750,000							
SLDC														
SL4B														
Airport Revenues														
System Revenues														
Connection Fees														
Other Funding Sources														
TOTAL SOURCE	\$105,000	\$65,000	\$1,750,000				\$1,920,000							
PROJECT SCHEDULE		START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER: Currently there is no developer agreement or a funding mechanism for developer participation. Future development may dictate developer participation.								
Preliminary Engineering Report		Aug-06		Dec-06										
Land/Right of Way														
Design/Surveying		Jan-07		Apr-07										
Construction		Oct-07		2008										
Equipment and Furniture														
Contingency														
TOTAL PROJECT														

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PROJECT NO.		PROJECT TITLE										
DR0604		Additional Inlets along Maygrove Drive/ Covington Woods (s)										
DESCRIPTION Maygrove is a cul-de-sac street in the Covington Woods subdivision that ultimately drains to the Covington Woods Ditch along the Woodchester storm sewer system. Construction of additional inlets would provide relief from concerns of flooding during smaller rain falls.						IMPACT ON OPERATING BUDGET						
						Expenditures		2007	2008	2009	2010	2011
						Personnel Services						
						Operations & Maintenance						
JUSTIFICATION Residents have complained about flooding concerns during smaller rain events. The Covington Woods study performed by Dannenbaum Engineering Corp., also identified a number of deficiencies in the stormwater collection system.						Capital						
						TOTAL						
PROJECT COSTS		Project Budget To Date	FISCAL YEAR PLAN					Project Total				
			BUDGET	ESTIMATED								
			2007	2008	2009	2010	2011					
Preliminary Engineering Report												
Land/Right of Way												
Design/Surveying		20,000						20,000				
Construction		150,000	70,000					220,000				
Equipment and Furniture												
Contingency		10,000						10,000				
TOTAL COSTS		\$180,000	\$70,000					\$250,000				
SOURCE OF FUNDS		Project Budget To Date	FISCAL YEAR PLAN					Project Total				
			BUDGET	ESTIMATED								
			2007	2008	2009	2010	2011					
General Revenue		160,000						160,000				
CO's												
Property Tax for Drainage												
Future GO Bonds												
SLDC												
SL4B												
Airport Revenues												
System Revenues												
Connection Fees												
Other Funding Sources		20,000	70,000					90,000				
TOTAL SOURCE		\$180,000	\$70,000					\$250,000				
PROJECT SCHEDULE		START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER: Additional funding (\$70,000) requested to reflect revised estimate based on the PER. Funding Source: WCID#1 Agreement						
Preliminary Engineering Report		Mar-05		May-05								
Land/Right of Way												
Design/Surveying		Apr-06		Aug-06								
Construction		Sep-06		Dec-06								
Equipment and Furniture												
Contingency												
TOTAL PROJECT												

City Goal:	Safe City
Reference:	Covington Woods Study
Project Manager:	Mike Wilkinson
Estimator:	Mike Wilkinson



City Goal:	Safe City
Reference:	Covington Woods Study
Project Manager:	Mike Wilkinson
Estimator:	Mike Wilkinson

CITY OF SUGAR LAND
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PROJECT NO. DR0606	PROJECT TITLE Ditch "A-22" Modifications (s)														
DESCRIPTION A study is underway to determine recommended improvements.				IMPACT ON OPERATING BUDGET											
				Expenditures	2007	2008	2009	2010	2011						
				Personnel Services											
				Operations & Maintenance											
				Capital											
JUSTIFICATION Recent improvements to "A-22" by MUD 21 in the vicinity of Sugar Mill subdivision exacerbated the flooding problems in the Sugar Mill Subdivision. The City & MUD 21 authorized a study to evaluate the impacts. Based on the findings from this study, mitigation measures are being proposed.				TOTAL											
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total								
		BUDGET	ESTIMATED												
2007	2008	2009	2010	2011											
Preliminary Engineering Report															
Land/Right of Way															
Design/Surveying															
Construction	400,000	100,000				500,000									
Equipment and Furniture															
Contingency															
TOTAL COSTS	\$400,000	\$100,000				\$500,000									
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total								
		BUDGET	ESTIMATED												
2007	2008	2009	2010	2011											
General Revenue															
CO's	400,000					400,000									
Property Tax for Drainage															
Future GO Bonds															
SLDC															
SL4B															
Airport Revenues															
System Revenues															
Connection Fees															
Other Funding Sources		100,000				100,000									
TOTAL SOURCE	\$400,000	\$100,000				\$500,000									
PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)		OTHER: Funding Source: WCID #1 Agreement											
Preliminary Engineering Report															
Land/Right of Way															
Design/Surveying															
Construction	TBD	TBD													
Equipment and Furniture															
Contingency															
TOTAL PROJECT															

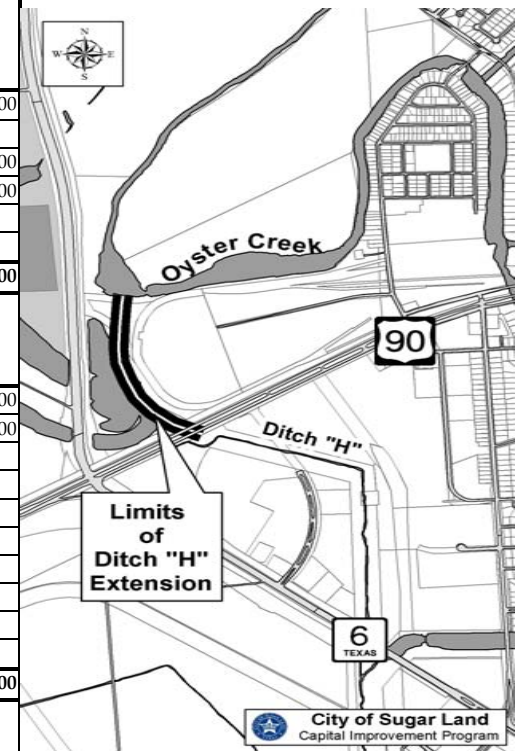
City Goal:	Safe City
Reference:	Ditch A-22 Analysis (Costello, Inc.)
Project Manager:	Shashi Kumar, P.E.
Estimator:	Shashi Kumar, P.E.

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
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PROJECT NO. DR0607		PROJECT TITLE Ditch H Extension					
DESCRIPTION Extend Ditch "H" across U.S. 90A and railroad to Oyster Creek just upstream of Dam 1. This is one of the projects identified in the 2002 Upper Oyster Creek and Ditch H Drainage Study.		IMPACT ON OPERATING BUDGET					
		Expenditures	2007	2008	2009	2010	2011
		Personnel Services					
		Operations & Maintenance					
JUSTIFICATION This completes Phase I Improvements identified and recommended in the 2002 Oyster Creek Study. The project will divert stormwater during extreme events from Oyster Creek to Ditch "H" and lower 100-yr WSE in Oyster Creek. The City is proposing partnership with FB County and Tract 3 developer.		Capital					
		TOTAL					
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total
		BUDGET	ESTIMATED				
		2007	2008	2009	2010	2011	
Preliminary Engineering Report	110,000						110,000
Land/Right of Way							
Design/Surveying	70,000						70,000
Construction		3,500,000					3,500,000
Equipment and Furniture							
Contingency							
TOTAL COSTS	\$180,000	\$3,500,000					\$3,680,000
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total
		BUDGET	ESTIMATED				
		2007	2008	2009	2010	2011	
General Revenue	110,000						110,000
CO's	70,000	3,500,000					3,570,000
Property Tax for Drainage							
Future GO Bonds							
SLDC							
SL4B							
Airport Revenues							
System Revenues							
Connection Fees							
Other Funding Sources							
TOTAL SOURCE	\$180,000	\$3,500,000					\$3,680,000
PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)		OTHER: \$3.5 M Construction costs based on City's share (50%) of the project. Project funded jointly between City and FB County. Estimates are preliminary. PER completed in Jan. 2006			
Preliminary Engineering Report	May-05	Jan-06					
Land/Right of Way							
Design/Surveying	May-06	Dec-06					
Construction	Oct-06	Nov-07					
Equipment and Furniture							
Contingency							
TOTAL PROJECT							

Map showing the location of the project area, including Oyster Creek, Ditch "H", and the proposed extension limits. The map includes a north arrow, a scale bar, and labels for Highway 90 and Highway 6. The City of Sugar Land logo is also present.

City Goal:	Safe City
Reference:	Upper Oyster Creek Study
Project Manager:	Shashi Kumar, P.E.
Estimator:	Shashi Kumar, P.E.



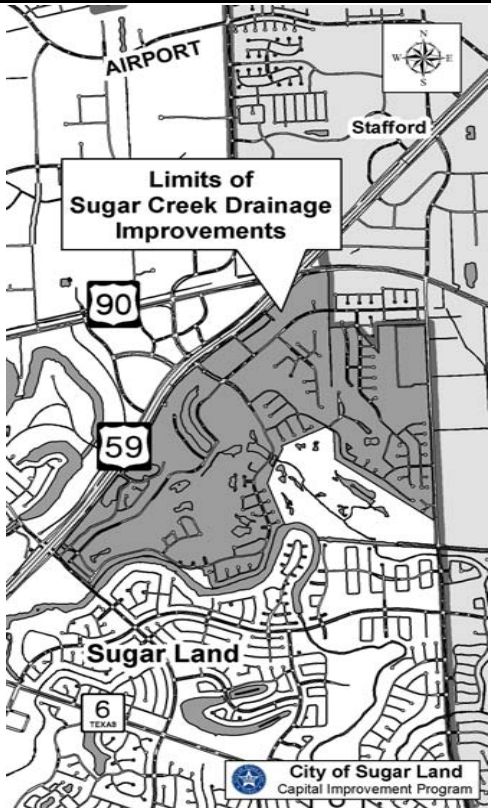
City Goal:	Safe City
Reference:	Upper Oyster Creek Study
Project Manager:	Shashi Kumar, P.E.
Estimator:	Shashi Kumar, P.E.

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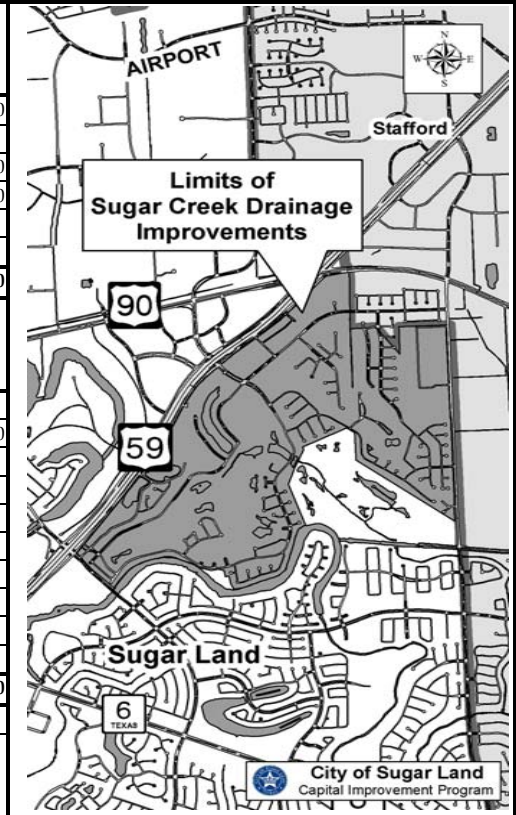
PROJECT NO. DR0608	PROJECT TITLE Storm Sewer Inlet/ Apron Reconstruction												
DESCRIPTION Annual removal and replacement of failed inlet aprons, inlet hoods, and reseal inlet boxes if required. In some cases adjustments to the "I" beams that support the frame and gates may be required.			IMPACT ON OPERATING BUDGET										
			Expenditures	2007	2008	2009	2010	2011					
			Personnel Services										
			Operations & Maintenance										
			Capital										
JUSTIFICATION Public Works has identified many residential streets and arterial streets that have double "B" storm sewer inlets that include a block out in the concrete pavement which has settled, cracked, and is in need of repairs. Final two years of five year project.			TOTAL										
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total						
		BUDGET	ESTIMATED										
2007	2008	2009	2010	2011									
Preliminary Engineering Report													
Land/Right of Way													
Design/Surveying													
Construction	125,000	125,000				250,000							
Equipment and Furniture													
Contingency													
TOTAL COSTS	\$125,000	\$125,000					\$250,000						
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total						
		BUDGET	ESTIMATED										
2007	2008	2009	2010	2011									
General Revenue	125,000					125,000							
CO's													
Property Tax for Drainage		125,000				125,000							
Future GO Bonds													
SLDC													
SL4B													
Airport Revenues													
System Revenues													
Connection Fees													
Other Funding Sources													
TOTAL SOURCE	\$125,000	\$125,000					\$250,000						
PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)		OTHER:									
Preliminary Engineering Report													
Land/Right of Way													
Design/Surveying													
Construction	Jun-06	Jan-07											
Equipment and Furniture													
Contingency													
TOTAL PROJECT													

City Goal: Safe City
 Reference:
 Project Manager: Greg Nichols
 Estimator: Greg Nichols

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PROJECT NO.		PROJECT TITLE											
DR0701		Sugar Creek Drainage Improvements - Phase I											
DESCRIPTION							IMPACT ON OPERATING BUDGET						
<p>The Phase 1 Improvements includes construction of lakes/detention within the River Bend Country Club (RBCC) Golf Course. This project is a precursor to other proposed improvements (Phase II and Phase III) in the Sugar Creek Watershed. This project will also mitigate runoff from development within "Triangle" area (bounded between U.S. 59, U.S. 90A & Commerce Green Blvd.).</p> <p>JUSTIFICATION A comprehensive study of the watershed completed in 2005 proposed a number of drainage improvement projects within the watershed. Phase 1 Improvements will include providing storage/detention to accommodate future improvements. This is necessary to reduce or eliminate downstream impacts. Partnership with RBCC will be necessary to implement these improvements.</p>							Expenditures		2007	2008	2009	2010	2011
							Personnel Services						
							Operations & Maintenance						
							Capital						
TOTAL													
PROJECT COSTS		Project Budget To Date	FISCAL YEAR PLAN					Project Total					
			BUDGET	ESTIMATED									
		2007	2008	2009	2010	2011							
Preliminary Engineering Report		30,000					30,000						
Land/Right of Way													
Design/Surveying		70,000					70,000						
Construction		450,000					450,000						
Equipment and Furniture													
Contingency													
TOTAL COSTS			\$550,000					\$550,000					
SOURCE OF FUNDS		Project Budget To Date	FISCAL YEAR PLAN					Project Total					
			BUDGET	ESTIMATED									
		2007	2008	2009	2010	2011							
General Revenue													
CO's		550,000					550,000						
Property Tax for Drainage													
Future GO Bonds													
SLDC													
SL4B													
Airport Revenues													
System Revenues													
Connection Fees													
Other Funding Sources													
TOTAL SOURCE			\$550,000					\$550,000					
PROJECT SCHEDULE		START (MTH, YEAR)		FINISH (MTH, YEAR)		<p>OTHER:</p> <p>Phase I project requires reaching a cost sharing agreement/ partnership with RBCC for using golf course to construct dual amenity (lakes/ detention) facilities. City staff are currently negotiating this agreement with RBCC.</p>							
Preliminary Engineering Report		Nov-06		Feb-07									
Land/Right of Way													
Design/Surveying		Mar-07		Jun-07									
Construction		Jul-07		Nov-07									
Equipment and Furniture													
Contingency													
TOTAL PROJECT													

City Goal:	Safe City
Reference:	Sugar Creek Drainage Study (2005)
Project Manager:	Shashi Kumar, P.E./Mike Wilkinson
Estimator:	Based on 2002 DEC Study



City Goal:	Safe City
Reference:	Sugar Creek Drainage Study (2005)
Project Manager:	Shashi Kumar, P.E./Mike Wilkinson
Estimator:	Based on 2002 DEC Study



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DRAINAGE

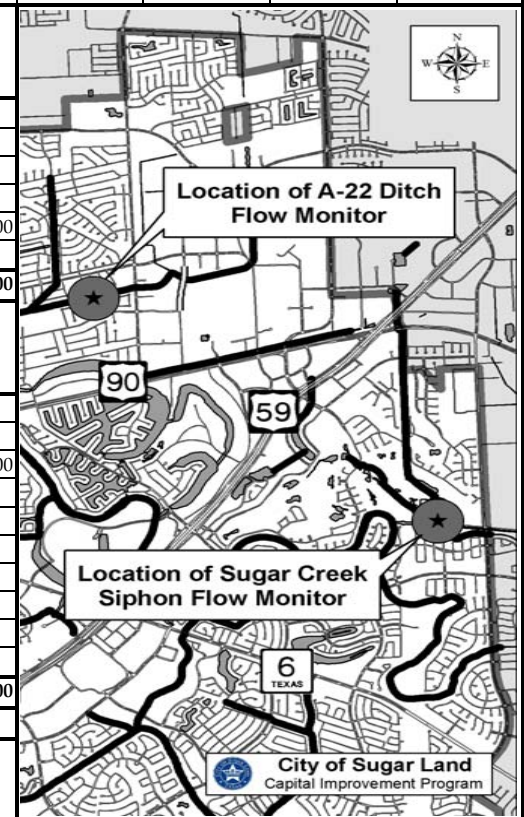
PROJECT NO. DR0702	PROJECT TITLE Sugar Creek/ Market Place Phase II										
DESCRIPTION Design and construction of an additional 48" diameter reinforced concrete pipe to Jane Long Lake across U.S. Highway 59. This additional conveyance is required to accommodate development in the "Triangle Area" in conjunction with the proposed expansion of the TxDOT detention facility. This project will follow Sugar Creek Drainage Improvements - Phase I.			IMPACT ON OPERATING BUDGET								
			Expenditures	2007	2008	2009	2010	2011			
			Personnel Services								
			Operations & Maintenance								
			Capital								
			TOTAL								
JUSTIFICATION The existing conduit conveying flow to Jane Long Lake (across US 59) was identified to be inadequate to convey runoff from the proposed development in the "Triangle Area". The recently (August, 2005) completed Triangle Detention PER confirmed that the level of development seen in the "Triangle Area" has triggered the need to construct Phase II Improvements.											
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
		2007	2008	2009	2010	2011					
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying		150,000					150,000				
Construction			1,350,000				1,350,000				
Equipment and Furniture											
Contingency			350,000				350,000				
TOTAL COSTS		\$150,000	\$1,700,000				\$1,850,000				
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
		2007	2008	2009	2010	2011					
General Revenue											
CO's											
Property Tax for Drainage											
Future GO Bonds			1,700,000				1,700,000				
SLDC											
SLAB											
Airport Revenues											
System Revenues											
Connection Fees											
Other Funding Sources		150,000					150,000				
TOTAL SOURCE		\$150,000	\$1,700,000				\$1,850,000				
PROJECT SCHEDULE	START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER: Other funding sources may include impact fee from the regional detention project per Ordinance 1129. Anticipates funding from Ordinance Fees.						
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying	Apr-07		2008								
Construction	2008		2008								
Equipment and Furniture											
Contingency											
TOTAL PROJECT											

Approximate Alignment of 48" Storm Sewer Construction

City Goal: Safe City
 Reference: Triangle Detention PER (August 2005)
 Project Manager: Ross Woodfin
 Estimator: Ross Woodfin

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
DRAINAGE

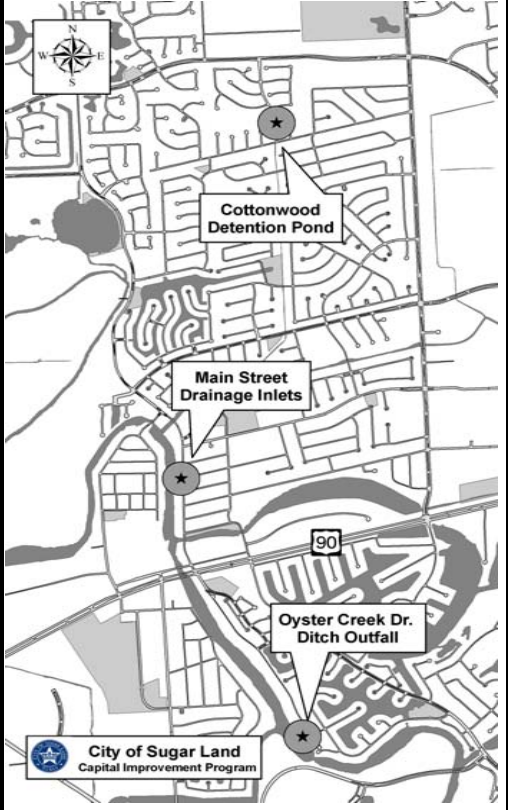
PROJECT NO. DR0703		PROJECT TITLE Additional Flow Monitors											
DESCRIPTION Installation of additional flow monitoring stations and appurtenant devices in the City's watersheds, and enhancements to the existing system.					IMPACT ON OPERATING BUDGET								
					Expenditures	2007	2008	2009	2010	2011			
					Personnel Services								
					Operations & Maintenance		20,000	20,000	20,000	20,000			
JUSTIFICATION These devices serve as a "flood alert system" as well as a data collection tool. The data collected is used in the evaluation/design of future drainage improvement projects in the City. The ultimate goal is to install these devices in all major drainage system.					Capital								
					TOTAL		\$20,000	\$20,000	\$20,000	\$20,000			
PROJECT COSTS		Project Budget To Date	FISCAL YEAR PLAN					Project Total					
			BUDGET	ESTIMATED									
			2007	2008	2009	2010	2011						
Preliminary Engineering Report													
Land/Right of Way													
Design/Surveying													
Construction													
Equipment and Furniture			125,000					125,000					
Contingency													
TOTAL COSTS			\$125,000					\$125,000					
SOURCE OF FUNDS		Project Budget To Date	FISCAL YEAR PLAN					Project Total					
			BUDGET	ESTIMATED									
			2007	2008	2009	2010	2011						
General Revenue													
CO 's													
Property Tax for Drainage			125,000					125,000					
Future GO Bonds													
SLED													
SL4B													
Airport Revenues													
System Revenues													
Connection Fees													
Other Funding Sources													
TOTAL SOURCE			\$125,000					\$125,000					
PROJECT SCHEDULE		START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER:							
Preliminary Engineering Report						There are 10 other monitoring sites currently in operation.							
Land/Right of Way													
Design/Surveying													
Construction													
Equipment and Furniture		Oct-06		Sep-07									
Contingency													
TOTAL PROJECT													



City Goal:	Safe City
Reference:	MDP/Oyster Creek Study
Project Manager:	Shashi Kumar, P.E.
Estimator:	Shashi Kumar, P.E.

CITY OF SUGAR LAND
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PROJECT NO. DR0704	PROJECT TITLE Localized Drainage Improvements										
DESCRIPTION Project will consist of providing for preliminary design, engineering and construction of miscellaneous drainage improvements serving specific neighborhoods (i.e., overflow of Oyster Creek Dr. ditch , Main St. drainage inlets and outfall reconstruction of Cottonwood Ct. detention pond).					IMPACT ON OPERATING BUDGET						
					Expenditures	2007	2008	2009	2010	2011	
					Personnel Services						
					Operations & Maintenance						
					Capital						
JUSTIFICATION Project will facilitate the timely correction of localized drainage problems in neighborhood settings.											
					TOTAL						
PROJECT COSTS		Project Budget To Date	FISCAL YEAR PLAN					Project Total			
			BUDGET	ESTIMATED							
			2007	2008	2009	2010	2011				
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying			40,000					40,000			
Construction			210,000					210,000			
Equipment and Furniture											
Contingency											
TOTAL COSTS			\$250,000					\$250,000			
SOURCE OF FUNDS		Project Budget To Date	FISCAL YEAR PLAN					Project Total			
			BUDGET	ESTIMATED							
			2007	2008	2009	2010	2011				
General Revenue											
CO's			250,000					250,000			
Property Tax for Drainage											
Future GO Bonds											
SLDC											
SL4B											
Airport Revenues											
System Revenues											
Connection Fees											
Other Funding Sources											
TOTAL SOURCE			\$250,000					\$250,000			
PROJECT SCHEDULE		START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER:					
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying		Oct-06		Feb-07							
Construction		Apr-07		Sep-07							
Equipment and Furniture											
Contingency											
TOTAL PROJECT											



City Goal: Responsible City Government

Reference:

Project Manager: Greg Nichols

Estimator: Greg Nichols

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
DRAINAGE

PROJECT NO. DR0705	PROJECT TITLE AMIL Gates Rehabilitation										
DESCRIPTION AMIL Gates located across Brooks Lake Diversion Channel mainly serve as flood control gates and also facilitate maintaining constant water surface elevation upstream of the gates.				IMPACT ON OPERATING BUDGET							
				Expenditures	2007	2008	2009	2010	2011		
				Personnel Services							
				Operations & Maintenance							
				Capital							
JUSTIFICATION The City is assuming the ownership of the gates from LID 2. As part of this transfer of ownership, the City had an assessment of the gates prepared by the vendor. Rehabilitation costs are allocated for potential maintenance/repairs.											
				TOTAL							
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
2007	2008	2009	2010	2011							
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying											
Construction											
Equipment and Furniture	240,000					240,000					
Contingency											
TOTAL COSTS		\$240,000					\$240,000				
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
2007	2008	2009	2010	2011							
General Revenue											
CO's	140,000					140,000					
Property Tax for Drainage	100,000					100,000					
Future GO Bonds											
SLDC											
SL4B											
Airport Revenues											
System Revenues											
Connection Fees											
Other Funding Sources											
TOTAL SOURCE		\$240,000					\$240,000				
PROJECT SCHEDULE	START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER: Estimates are preliminary. Actual costs based on assessment.						
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying											
Construction											
Equipment and Furniture	TBD	TBD									
Contingency											
TOTAL PROJECT											

City Goal:	Safe City
Reference:	
Project Manager:	Greg Nichols
Estimator:	Greg Nichols

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
DRAINAGE

PROJECT NO. DR0706	PROJECT TITLE Belknap/Brookside Area Phase III Improvements									
DESCRIPTION The Kelly Kaluza Study identified three phase of Drainage Improvements to serve the Belknap/Brookside Area. The first two phases of improvements identified in this study have been constructed. Phase III Improvements would complete implementation of all projects recommended in this study.			IMPACT ON OPERATING BUDGET							
			Expenditures	2007	2008	2009	2010	2011		
			Personnel Services							
			Operations & Maintenance							
			Capital							
JUSTIFICATION Residents of Belknap/Brookside have complained to City staff about flooding concerns along Dogwood St. The residents have requested City staff to implement this last phase of proposed improvements to alleviate flooding concerns.										
			TOTAL							
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total			
		BUDGET	ESTIMATED							
		2007	2008	2009	2010	2011				
Preliminary Engineering Report										
Land/Right of Way										
Design/Surveying		100,000					100,000			
Construction			900,000				900,000			
Equipment and Furniture										
Contingency										
TOTAL COSTS		\$100,000	\$900,000				\$1,000,000			
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total			
		BUDGET	ESTIMATED							
		2007	2008	2009	2010	2011				
General Revenue										
CO's										
Property Tax for Drainage		100,000					100,000			
Future GO Bonds			900,000				900,000			
SLDC										
SL4B										
Airport Revenues										
System Revenues										
Connection Fees										
Other Funding Sources										
TOTAL SOURCE		\$100,000	\$900,000				\$1,000,000			
PROJECT SCHEDULE	START (MTH, YEAR)		FINISH (MTH, YEAR)		OTHER:					
Preliminary Engineering Report										
Land/Right of Way										
Design/Surveying	Nov-06	Jul-07								
Construction	2008	2008								
Equipment and Furniture										
Contingency										
TOTAL PROJECT										

City Goal: Safe City

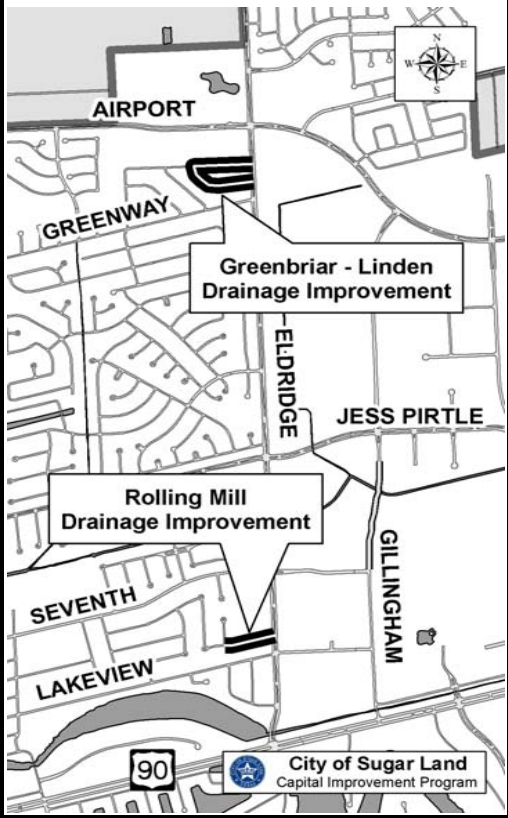
Reference: Kelly Kaluza Study

Project Manager: Ross Woodfin

Estimator: Based on Kelly Kaluza Study

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
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PROJECT NO. DR0801	PROJECT TITLE Storm Sewer Lateral Tie-in's to Eldridge Road										
DESCRIPTION Design and construction of storm sewer laterals that divert a portion of flows from the Covington Woods Subdivision to Eldridge Road. Additional flow diversions from the following streets (Greenbrier, Linden and Rolling Mill) is being proposed. This project will follow Ditch A-22 modifications.			IMPACT ON OPERATING BUDGET								
			Expenditures	2007	2008	2009	2010	2011			
			Personnel Services								
			Operations & Maintenance								
			Capital								
JUSTIFICATION This is in line with the departmental plan to study and improve all of the areas prone to street flooding within the City. This is the next logical step in the continuation of an opportunistic program for drainage improvements.			TOTAL								
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
		2007	2008	2009	2010	2011					
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying	30,000						30,000				
Construction			890,000				890,000				
Equipment and Furniture											
Contingency											
TOTAL COSTS	\$30,000		\$890,000				\$920,000				
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
		2007	2008	2009	2010	2011					
General Revenue	30,000						30,000				
CO's											
Property Tax for Drainage											
Future GO Bonds			890,000				890,000				
SLDC											
SLAB											
Airport Revenues											
System Revenues											
Connection Fees											
Other Funding Sources											
TOTAL SOURCE	\$30,000		\$890,000				\$920,000				
PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)		OTHER: Design funded in DR0202.							
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying	2008	2008									
Construction	2008	2008									
Equipment and Furniture											
Contingency											
TOTAL PROJECT											



City Goal: Safe City

Reference:

Project Manager: Mike Leech

Estimator: Mike Leech

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
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PROJECT NO. DR0802	PROJECT TITLE Covington Woods Phase II Improvements										
DESCRIPTION Design and construction of Phase II Drainage Improvements as identified in the 2002 Covington Woods Study. This project will follow the Ditch "A-22" Improvements.					IMPACT ON OPERATING BUDGET						
					Expenditures	2007	2008	2009	2010	2011	
					Personnel Services						
					Operations & Maintenance						
JUSTIFICATION The proposed improvements to the Covington Woods channel is to alleviate flooding concerns due to the inadequate capacity of the ditch.					Capital						
					TOTAL						

PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total
		BUDGET	ESTIMATED				
		2007	2008	2009	2010	2011	
Preliminary Engineering Report							
Land/Right of Way							
Design/Surveying			300,000				300,000
Construction				3,000,000			3,000,000
Equipment and Furniture							
Contingency							
TOTAL COSTS			\$300,000	\$3,000,000			\$3,300,000

SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total
		BUDGET	ESTIMATED				
		2007	2008	2009	2010	2011	
General Revenue							
CO's							
Property Tax for Drainage							
Future GO Bonds			300,000	3,000,000			3,300,000
SLDC							
SL4B							
Airport Revenues							
System Revenues							
Connection Fees							
Other Funding Sources							
TOTAL SOURCE			\$300,000	\$3,000,000			\$3,300,000

PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)	OTHER:
Preliminary Engineering Report			
Land/Right of Way			
Design/Surveying	2008	2008	
Construction	2009	2009	
Equipment and Furniture			
Contingency	2009	2009	
TOTAL PROJECT			

City Goal:	Safe City
Reference:	Master Drainage Plan
Project Manager:	Ross Woodfin
Estimator:	Ross Woodfin

CITY OF SUGAR LAND
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DRAINAGE

PROJECT NO. DR0803	PROJECT TITLE Sugar Creek Drainage Improvements - Phase II									
DESCRIPTION The Phase II Improvements mainly include construction/upsizing of storm sewer outfalls at many locations within the watershed. These improvements would provide outlet for trapped sheet flow accumulated during extreme events. Phase II Improvements will help minimize street ponding levels during these events.					IMPACT ON OPERATING BUDGET					
					Expenditures	2007	2008	2009	2010	2011
					Personnel Services					
					Operations & Maintenance					
					Capital					
JUSTIFICATION A comprehensive study of the watershed completed in 2005 identified a number of locations where street ponding levels exceed allowable design criteria. Also, design for sheet flow was not factored in the original design, since the criteria was adopted in 1989, after majority of Sugar Creek infrastructure was built. Phase II Improvements will help remedy some of these deficiencies.					TOTAL					
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total			
		BUDGET	ESTIMATED							
2007	2008	2009	2010	2011						
Preliminary Engineering Report										
Land/Right of Way										
Design/Surveying		100,000				100,000				
Construction		1,100,000				1,100,000				
Equipment and Furniture										
Contingency										
TOTAL COSTS			\$1,200,000				\$1,200,000			
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total			
		BUDGET	ESTIMATED							
2007	2008	2009	2010	2011						
General Revenue										
CO's										
Property Tax for Drainage										
Future GO Bonds		1,200,000				1,200,000				
SLDC										
SL4B										
Airport Revenues										
System Revenues										
Connection Fees										
Other Funding Sources										
TOTAL SOURCE			\$1,200,000				\$1,200,000			
PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)		OTHER: Phase I Improvements to be constructed prior to construction of Phase II Imp.						
Preliminary Engineering Report										
Land/Right of Way										
Design/Surveying	2008	2008								
Construction	2008	2008								
Equipment and Furniture										
Contingency										
TOTAL PROJECT										

City Goal: Safe City

Reference: Sugar Creek Drainage Study (2005)

Project Manager: Shashi Kumar, P.E./Ross Woodfin

Estimator: Based on 2002 DEC Study

CITY OF SUGAR LAND
2007 - 2011 CAPITAL IMPROVEMENT PROGRAM
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PROJECT NO. DR0901	PROJECT TITLE Sugar Creek Drainage Improvements - Phase III										
DESCRIPTION The Phase III Improvements include increasing the capacity of the East Sugar Creek Ditch System. Conceptual alternatives proposed include concrete lining the existing ditch, and installing a parallel box conduit system to convey additional flow to the River Bend Country Club Golf Course.					IMPACT ON OPERATING BUDGET						
					Expenditures	2007	2008	2009	2010	2011	
					Personnel Services						
					Operations & Maintenance						
					Capital						
JUSTIFICATION A comprehensive study of the watershed completed in 2005 identified serious capacity limitations in the East Sugar Creek Ditch. The proposed improvements will provide additional capacity to the East Sugar Creek Drainage System. This project will help minimize street flooding/ponding in drainage areas that outfall into this ditch.					TOTAL						
PROJECT COSTS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
2007	2008	2009	2010	2011							
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying			500,000			500,000					
Construction			6,000,000			6,000,000					
Equipment and Furniture											
Contingency											
TOTAL COSTS				\$6,500,000		\$6,500,000					
SOURCE OF FUNDS	Project Budget To Date	FISCAL YEAR PLAN					Project Total				
		BUDGET	ESTIMATED								
2007	2008	2009	2010	2011							
General Revenue											
CO's											
Property Tax for Drainage											
Future GO Bonds			6,500,000			6,500,000					
SLDC											
SLAB											
Airport Revenues											
System Revenues											
Connection Fees											
Other Funding Sources											
TOTAL SOURCE			\$6,500,000		\$6,500,000						
PROJECT SCHEDULE	START (MTH, YEAR)	FINISH (MTH, YEAR)		OTHER: Phase II Improvements to be constructed prior to construction of Phase III Imp.							
Preliminary Engineering Report											
Land/Right of Way											
Design/Surveying	2009	2009									
Construction	2009	2009									
Equipment and Furniture											
Contingency											
TOTAL PROJECT											

City Goal: Safe City

Reference: Sugar Creek Drainage Study (2005)

Project Manager: Shashi Kumar, P.E./Ross Woodfin

Estimator: Based on 2002 DEC Study